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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/815,250	03/23/2001	Walter G. Scott	1823.0150003	6507

26111 7590 06/27/2003

STERNE, KESSLER, GOLDSTEIN & FOX PLLC
1100 NEW YORK AVENUE, N.W.
WASHINGTON, DC 20005

EXAMINER

BUDD, MARK OSBORNE

ART UNIT	PAPER NUMBER
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2834

DATE MAILED: 06/27/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/815,250

Applicant(s)

SCOTT, WALTER G.

Examiner

Mark Budd

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9,23,54 and 63-95 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-9,23,54,63,73,74 and 86-95 is/are rejected.
- 7) ☒ Claim(s) 64-72 and 75-85 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 86 and 95 are rejected under 35 U.S.C. 102(a) as being anticipated by Costello, Leger, Ruell, Hallibert or Chang.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 6, 8, 18, 23, 54, 63, 73, 74 and 87-94 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ruell or Leger.

Leger teaches an array of pyro-piezoelectric sensors with sufficient numbers to identify finger ridge patterns. PVDF (polymer) materials are preferred, but ceramics are not excluded. (See e.g. col. line 42-col. 2 line 10, col. 4, line 12-col. 5 line 6). Ruell teaches a matrix of piezoelectric ceramic sensors (col. 4, line 68). However, each sensor is a portion of a single, divided piezo slab. Ruell explicitly teaches that higher sensor density directly relates to the accuracy of the device, and suggests a pitch of the smallest finger ridge. Neither reference explicitly quantifies sensor dimensions. However, optimization of a known device to a particular specific application has long been held to be within the skill expected of the routineer. Thus

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selection of particular dimensions would have been obvious to one of ordinary skill in the art.

Regarding claims 92-94 note Ruell (fig. 7) provides cross-talk prevention. Use of plastic micro spheres as an acoustic mismatching material in a piezoelectric ultrasonic device is known per se. (Official notice taken), and substitution of known cross-talk preventing means or materials would have been obvious to one of ordinary skill in the art.

Claims 4, 5, 7 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ruell or Leger in view of Mine or Wright .

Ruell and Leger teach a piezo electric detector that outputs data relative to a finger by monitoring impedance changes. They do not detect material blood flow, bone density etc.

However, use of detectors to provide the various output data are known as taught by Mine or Wright. To select what data to evaluate or which mode of operation from among known sets of data and modes for Ruell or Leger would have been obvious to one of ordinary skill in the art.

Conversely. Mine and Wright teach systems for providing the desired data except for the specific, known detector of Ruell or Leger (due to low power requirements, mechanical strength, ease of manufacture, etc) for use in the systems of either Mine or Wright would have been obvious to one of ordinary skill in the art.

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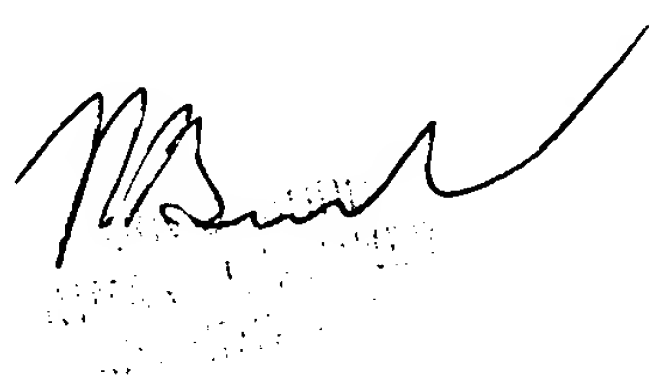
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Claims 64-72 and 75-85 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Further cited of interest is Suga.

Budd/ds

06/25/03

A handwritten signature in black ink, appearing to be "Budd", with a long, sweeping horizontal line extending to the right. Below the signature is a faint, circular embossed seal.